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CATALOGUE

OF THE

State College of Agriculture

AND THE

MECHANIC ARTS.

ORONO, MAINE, 1889–90.

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PRINCIPAL BUILDINGS OF THE MAINE STATE COLLEGE.

Oak Hall and Boarding-House. Wingate Hall. Chemical Laboratory. Shop.

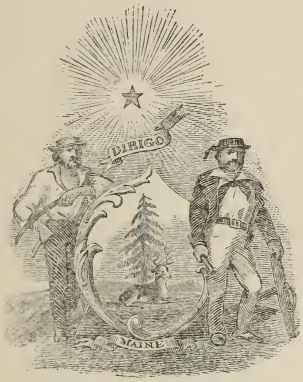
CATALOGUE

OF THE

State College of Agriculture

AND THE

MECHANIC ARTS.



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AUGUSTA:
BURLEIGH & FLYNT, PRINTERS TO THE STATE.
1890.

TRUSTEES.

WM. H. STRICKLAND, Esq., Bangor, *President.*
Hon. WM. T. HAINES, B. S., LL. B., Waterville, *Secretary.*
Capt. CHARLES W. KEYES, Farmington.
Hon. FRED ATWOOD, Winterport.
Gen. R. B. SHEPHERD, Skowhegan.
ARTHUR L. MOORE, B. S., Limerick.
RUTILLUS ALDEN, Esq., Winthrop.
Hon. CHARLES P. ALLEN, B. S., Presque Isle.

TREASURER:

Prof. G. H. HAMLIN, Orono.

EXECUTIVE COMMITTEE:

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Gen. R. B. SHEPHERD.
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EXAMINING COMMITTEE:

His Excellency EDWIN C. BURLEIGH.
Rev. CHARLES F. ALLEN, D. D.
WM. B. LAPHAM, M. D.

FACULTY.

MERRITT C. FERNALD, A. M., PH. D., PRESIDENT,
and Professor of Physics and Mental and Moral Science.

ALFRED B. AUBERT, M. S.,
Professor of Chemistry, and Secretary of the Faculty.

FRANCIS L. HARVEY, M. S.,
Professor of Natural History.

GEORGE H. HAMLIN, C. E.,
Professor of Civil Engineering,

ALLEN E. ROGERS, A. M.,
Professor of Modern Languages, Logic and Political Economy.

WALTER BALENTINE, M. S.,
Professor of Agriculture.

WALTER FLINT, M. E.,
Professor of Mechanical Engineering.

JAMES N. HART, B. C. E.,
Instructor in Mathematics and Drawing.

LIEUT. EVERARD E. HATCH, 18th U. S. INFANTRY,
Professor of Military Science and Tactics.

HOWARD S. WEBB, B. M. E.,
Instructor in Shop-Work, and Registrar.

FREMONT L. RUSSELL, B. S., D. V. S.
Instructor in Veterinary Science.

FRED P. BRIGGS, B. S.
Assistant in Natural History.

AARON E. SPENCER,
Steward.

STUDENTS.

POST GRADUATE.

Wilson, Nathaniel Estes, B. S.	Orono.

SENIOR CLASS.

Andrews, Frank Orris,	Rockland.
Babb, George Herbert,	Sebago.
Bird, John, 2d,	Rockland.
Blackington, Ralph Harvey,	Rockland.
Bowden, George Irving,	So. Penobscot.
Cargill, Carroll David,	Livermore Falls.
Clark, Hugo,	Lincoln.
Coffin, Alphonso John,	Harrington.
Croxford, Walter Everett,	Jackson.
Dow, Fred Todd,	Gorham.
Drew, Albert Wilson,	Canaan.
Dunton, Harris Drummond,	Boothbay.
Farrington, Horace Parker,	Cape Elizabeth.
Gould, George Pendleton,	Stillwater.
Grover, Nathan Clifford,	West Bethel.
Hardison, Allie Crosby,	Caribou.
Harvey, Chandler Cushman,	Fort Fairfield.
Hastings, Allie Mills,	Rockland.
Hayes, Samuel Henry Tewksbury,	Oxford.
Heath, Everett Fenno,	Bangor.
Jones, Leon Houston,	Boston, Mass.
Kelley, Edward Havener,	Belfast.
Kenniston, Irving Chase,	Boothbay.
Keyes, George Edwin,	Hampden.
Morey, Elmer Lake,	Colombo, Ceylon.

Morrill, Edmund Needham,	Deering.
Owen, John Wesley, Jr.,	Saco.
Peirce, Varna John,	Hudson.
Pierce, William Bridgham,	Hudson.
Pierce, William Barron,	Harpswell.
Pillsbury, George Melville,	North Scarboro'.
Quincy, Fred Grant,	Masardis.
Rackliffe, Joseph Riley,	Hampden.
Reed, Fullerton Paul,	Boothbay.
Sawyer, Frank Wade,	Milford.
Swan, Clarence Buzzell,	Oldtown.
Wallace, Chester Jay,	Jackson.
Webb, Winfield Scott,	Caribou.
Webber, Gilman Hodgdon,	East Boothbay.
Wight, Ralph Holbrook,	Belfast.
Williams, Charles Sampson,	Portland.

JUNIOR CLASS.

Arey, Ralph Jesse,	Hampden.
Bailey, William Melvin,	Malden, Mass.
Clark, Edmund,	Bethel.
Clayton, Charles,	Bangor.
Davis, James Walter,	Yarmouthville.
Farrington, Wallace Ryder,	Cape Elizabeth.
Farrington, William Rowe,	Portland.
Flanagan, John Henry,	Rockland.
Graves, Joseph Colburn,	Orono.
Hall, Bert Austin,	Shapleigh.
Hamlin, Cyrus,	Bangor.
Keith, William Everett,	Oldtown.
Keyes, Prescott,	Litchfield Corner.
Kilbourne, Charles Herbert,	North Waterford.
Lord, Robert William,	Skowhegan.
Menges, Hugo Gustave,	Bangor.
Merrill, True Lander,	Orono.
Merrill, Edwin Reuel,	Yarmouthville.
Miller, Albert Morton,	Waldoboro.
Morris, William Allen,	Bangor.
Moulton, Fred Charles,	Hiram.
Page, Warren Robin,	Hampden.
Patten, William Nickels,	Cherryfield.
Scott, Clarence,	Olamon.
Starrett, Henry Vaill,	Warren.
Steward, John White,	Skowhegan.
Taylor, Charles Norton,	Hampden.
Thompson, George Edward,	Orono.
Tirrill, Leonard Alexander,	Holden.
Valentine, William Alton,	Bethel.

SOPHOMORE CLASS.

Alexander, John Francis,	Richmond.
Atherton, George Frederic,	Newry.
Atkinson, William Hacker,	Brunswick.
Bourne, Frank Augustus,	Bangor.
Bristol, Mortimer Leonard,	Canton Ctr., Conn.
Butterfield, William Rowe,	Milford.
Clark, Roscoe Conkling,	Bethel.
Cobb, Charles Edward,	Patten.
Danforth, Ernest Wilbur,	Brunswick.
Doolittle, Herbert Edward,	Northfield, Mass.
Farrington, Mellen Edward,	Brewer.
Fernald, Robert Heywood,	Orono.
Gibbs, John Clinton,	So. Turner.
Grover, Arthur Curtis,	West Bethel.
Hatch, Ernest Stearns,	Lovell Centre.
Healey, Warren Evans,	Rockland.
Hersey, Jacob Frye,	Patten.
Holden, William Cross,	So. Windham.
Maguire, George Patrick,	Biddeford.
McKechnie, Willard Erastus,	Princeton.
Nealley, Calvin Henry,	Monroe.
Prentiss, Harry Mellen,	Brewer.
Prince, Job,	So. Turner.
Randlette, Charles Maurice,	Richmond.
Rich, George Frank,	Bethel.
Timberlake, Stanley Milton,	No. Turner Bridge.
Tolman, Frank Stevens,	Milo.
Tyler, Joseph Albert,	Farmington.
Williams, LaForest Charles,	Athens.

FRESHMAN CLASS.

Alexander, James Almore,	Richmond.
Alford, Abbott Edwin,	Oldtown.
Buck, Hosea Ballou,	Stillwater.
Crosby, Walter Wilson,	Bangor.
Durham, Leroy Tolford,	Monroe.
French, Charles Frederick,	Glenburn.
Gannett, Charles Henry,	Augusta.
Gray, Jesse Alexander,	Oldtown.
Hamlin, Edwin Thompson.	Bangor.
Hammatt, William Cushing,	Bangor.
Haynes, Charles Irving,	Bangor.
Hutchinson, George Weymouth,	Orono.
Jack, Walter Dows,	Topsham.
Jerrard, John,	Bangor.
Johnston, Chesley Metcalf,	Bangor.
Kittredge, Charles Prentiss,	Milo.
Lewis, Hugh McLellan,	So. Berwick.
Morris, John Richard,	Bangor.
Robinson, Harry Orman,	Bangor.
Smith, Harry Maubic,	Bangor.
Smith, Lizzie Louise,	Veazie.
Smith, Ralph Kendrick,	Bangor.
Steward, George Henry Colburn,	Orono.
Webster, John Milton,	Augusta.
Wilson, Pearly Rupert,	Solon.
Young, Thomas Jefferson,	Athens.

SPECIAL STUDENTS.

Bond, Edward Edmund,	Orono.
Clergue, Bertrand Joseph,	Bangor.
Fernald, Henry Elmer,	So. Levant.
Webster, Alden Palmer,	Orono.

SUMMARY.

Post Graduate,	1	Sophomores,	29
Seniors,	41	Freshmen,	26
Juniors,	30	Special,	4
		Total,	131

PRIZES FOR 1888.

Prentiss Prize, for best Junior Essay, awarded to Chandler Cushman Harvey of Ft. Fairfield.

Prentiss Prize, Sophomore Declamation, awarded to Charles Norton Taylor of Hampden, and Alden Palmer Webster of Orono.

Libbey Prize, for best Agricultural Essay, awarded to George Melville Pillsbury of No. Scarboro.

Award for highest standing, Sophomore Class, to William Rowe Farrington of Portland.

Award for highest standing, Freshman Class, to Robert Heywood Fernald of Orono, and John Clinton Gibbs of South Turner.

MILITARY DEPARTMENT.

COBURN CADETS.

Second Lieutenant EVERARD E. HATCH, 18th U. S. Infantry, Commanding.

Cadet EDWARD H. KELLEY, Major and Commandant of Cadets.

Cadet NATHAN C. GROVER, First Lieutenant and Adjutant.

Cadet CHANDLER C. HARVEY, First Lieutenant and Quartermaster.

Cadet WILLIAM R. FARRINGTON, Sergeant Major.

	Co. A.	Co. B.
Captain	John Bird 2d	Joseph R. Rackliffe.
1st Lieutenant	Alphonso J. Coffin	George H. Babb.
2nd "	Everett F. Heath	Fred T. Dow.
3rd "	Samuel H. T. Hayes	Horace P. Farrington.
1st Sergeant	Wallace R. Farrington	Edwin R. Merrill.
Sergeant	William N. Patten	William E. Keith.
"	Hugo G. Menges	Robert W. Lord.
"	William A. Morris	Henry V. Starrett.
"	Clarence Scott	Edmund Clark.
Corporal	George F. Rich	Robert H. Fernald.
"	William C. Holden	Arthur C. Grover.
"	Frank S. Tolman	Charles M. Randlette.
"	Harry M. Prentiss	Mortimer L. Bristol.

Armorer, Walter E. Croxford.
Band Leader, George E. Keyes.
Band Sergeant, Cyrus Hamlin.

COLOR GUARD.

Color Sergeant, John W. Steward.
" *Corporal*, George F. Rich.
" " William C. Holden.
" " Arthur C. Grover.

DESIGN OF THE INSTITUTION.

It is the design of the Maine State College of Agriculture and the Mechanic Arts to give, at a moderate cost, the advantages of a thorough, liberal and practical education. It seeks to do this by means of approved methods of instruction, and especially by making prominent the system of practically applying in the drawing-room, in the laboratory, in the shop and in the field, the lessons of the class-room. It thus endeavors to make its courses of high practical value.

By the act of Congress granting public lands for the endowment and maintenance of such colleges, it is provided that the leading object of such an institution shall be, "without excluding other scientific and classical studies, and including military tactics, to teach such branches of learning as are related to Agriculture and the Mechanic Arts."

While the courses of study fully meet this requisition, and are especially adapted to prepare the student for agricultural and mechanical pursuits, it is designed that they shall be also sufficiently comprehensive, and of such a character, as to secure the discipline of mind and practical experience necessary for entering upon other callings or professions.

CONDITIONS OF ADMISSION.

Candidates for admission to the Freshman Class must be not less than fifteen years of age, and must pass a satisfactory examination in Arithmetic, Geography, English Grammar (especial attention should be given to Orthography, Punctuation and Capitals,) History of the United States, Physical Geography, Book-Keeping, Algebra to Logarithms, and Plane Geometry.

Although the knowledge of Latin is not required as a condition of admission, yet the study of this language is earnestly recommended to all who intend to enter this Institution.

Candidates for advanced standing must sustain a satisfactory examination in the preparatory branches, and in all the studies previously pursued by the class they propose to enter.

Satisfactory testimonials of good moral character and industrious habits will be rigidly exacted. They should be presented on the day of examination.

The Friday following the last Wednesday of June, and the day of the beginning of the first term in August, are the appointed times for the examination of candidates at the college.

Arrangements have been made by which applicants accommodated by the plan may pass examination for admission without incurring the expense of coming to Orono. The gentlemen named below have been appointed examiners in the sections of the State in which they severally reside.

C. P. Allen, B. S.,	Presque Isle.
H. M. Estabrook, M. S.,	Gorham.
E. S. Danforth, B. S., S. W. Gould, B. S.,	Skowhegan.
Henry K. White, A. M.,	Newcastle.
Rev. W. R. Cross,	Milltown, N. B.
A. C. Dresser, A. B.,	Rockland.
I. C. Phillips, A. B.,	Wilton.
Hon. N. A. Luce,	Augusta.
W. R. Whittle, A. B.,	Ellsworth.
W. E. Sargent, A. M.,	Hebron.
Edwin P. Sampson, A. B.,	Saco.
A. D. Hall, A. B.,	Bethel.

Examiners will indicate to parties applying, the time and special place of examination. Arrangements have also been made with the Seminary at Bucksport and with the Academy at Hampden, by which students from these institutions may be admitted to the college on certificate of qualification from the respective Principals.

All candidates, wherever they may arrange to be examined, should make early application to the president of the college. Applications will be recorded and regarded in the order of their reception.

COURSES OF INSTRUCTION.

Five full courses are provided, viz: A course in Agriculture, in Civil Engineering, in Mechanical Engineering, in Chemistry, and in Science and Literature.

The studies of the several courses are essentially common for the first year, and are valuable not only in themselves, but also as furnishing a necessary basis for the more technical studies and the practical instruction of the succeeding years.

Physical Geography, required on admission, serves as a suitable introduction to Geology, which is taken up in each of the courses. Physiology serves as an introduction to Comparative Anatomy, and Algebra, Geometry and Trigonometry, taught in the first year, are needed preliminaries to the higher mathematics and the practical applications required in Surveying, Engineering proper and Astronomy. Botany, Chemistry and Physics are highly important branches, common to all the assigned courses, and hence taken by all the students who are candidates for degrees.

Rhetoric, French and English Literature from the early part of the line of studies which later includes German, Logic, History of Civilization, United States Constitution, Political Economy, and Mental and Moral Science, branches, several of which relate not more to literary culture than to social and civil relations, and to the proper preparation for the rights and duties of citizenship.

Composition and Declamation are regular exercises in all the courses throughout the four years. For the characteristic features of each course, reference is made to the explanatory statements following the several schemes of study.

SPECIAL COURSES.

Students may be received for less time than that required for a full course, and they may select from the studies of any class such branches as they are qualified to pursue successfully. Students in Special Courses are not entitled to degrees, but may receive certificates of proficiency.

DEGREES.

The full course in Civil Engineering entitles to the Degree of Bachelor of Civil Engineering; the full course in Mechanical Engineering, to the Degree of Bachelor of Mechanical Engineering; the full course in Agriculture, Chemistry, or Science and Literature, to the Degree of Bachelor of Science.

Three years after graduation, on presentation of a satisfactory thesis with the necessary drawings, and proof of professional work or study, the Bachelors of Civil Engineering may receive the Degree of Civil Engineer; the Bachelors of Mechanical Engineering, the Degree of Mechanical Engineer; the Bachelors of Science, the Degree of Master of Science.

COURSE IN AGRICULTURE.

FIRST YEAR.

First Term.	*Second Term.*
Physiology.	Botany.
Rhetoric.	French.
Solid Geometry.	Logarithms and Trigonometry.
P. M. Labor on Farm.	P. M. Labor on Farm.
Free-Hand Drawing.	Mechanical Drawing. (F. of T.)
Dissecting.	Botanical Laboratory Work. (L. of T.)

SECOND YEAR.

First Term.	*Second Term.*
Botany.	Qualitive Chemistry.
General Chemistry.	Physics. (F. of T.)
French.	German.
Physics.	Surveying. (L. of T.)
P. M. Laboratory Work in Botany.	English History (L. of T.) for ladies.
Laboratory Work in Physics.	P. M. Field Work and Forge Work.
	Laboratory Physics.
	French Translations for V.

THIRD YEAR.

First Term.	*Second Term.*
Agricultural Engineering, including Farm Implements, Farm Drainage and Mechanical Cultivation of the Soil.	Agricultural Chemistry, Landscape Gardening, Horticulture and Arboriculture and Farm Accounts.
Agricultural Chemistry or Advanced Chemistry, for V.	Zoology and Entomology.
English and American Literature.	Logic.
German.	P. M. Laboratory Work and Experimental Farming or *Analysis of English Authors, and German Translations.
P. M. Laboratory Work or *Analysis of English Authors and Translations from French.	

FOURTH YEAR.

First Term.	*Second Term.*
Cattle Feeding and Dairy Farming.	Stock Breeding and Veterinary Science. Sheep Husbandry and Cultivation of Cereals.
Comparative Anatomy.	
History of Civilization.	
Political Economy.	Mineralogy and Geology.
P. M. Experimental Farming and Agricultural Botany or *Translations from German.	U. S. Constitution.
	Mental and Moral Science.
	P. M. Thesis and Laboratory Work and Theme and Thesis Work.

*To be taken in Course in Science and Literature in place of study preceding.

EXPLANATORY STATEMENTS.

This course is designed to fit young men to follow Agriculture as a profession with success, as well as to prepare them for the intelligent performance of the duties of citizenship.

To this end, the curriculum of studies is largely scientific and technical, not omitting, however, those branches that have been referred to as pertaining to social and civil relations.

The instruction in Agriculture is given largely by lectures, and embraces subjects of great practical importance to the farmer, which are briefly explained under the following heads:

Agricultural Engineering.—Combined with recitations in mechanics from a text-book, lectures are given on the principles of construction and use of farm implements, illustrated by charts to the extent possible, on the construction of roads, culverts and masonry, and on soil physics, or the relations of the soil to heat and moisture, the mechanical conditions of the soil best adapted to plant growth, and the objects to be gained by cultivation.

Agricultural Chemistry.—Under this head are considered the various methods of retaining and increasing the fertility of the soil, the sources, composition and methods of valuation of commercial and farm manures, together with the principles governing their treatment and application, the composition of cattle foods, their changes and uses in the animal system, and the value and economic use of the various kinds of fodders.

Landscape Gardening.—The object of this study is to furnish correct ideas of the manner of laying out and beautifying grounds. This subject is followed by lectures on Horticulture and Arboriculture.

Cultivation of Cereals.—Lectures are given upon the best methods of cultivating the principal farm crops.

Dairy Farming.—This embraces the chemical and physical properties of milk, and the principles and practical operations that underlie its production and manufacture into butter and cheese.

Sheep Husbandry.—The characteristics and comparative merits of our different breeds of sheep are discussed, also their adaptability to different conditions and uses.

Botany.—Following recitations and practical work in Botany, lectures are given upon fungi injurious to the farmer.

Chemistry.—One term is devoted to General Chemistry, two terms to Agricultural Chemistry, one-half term to Organic Chemistry, and

the afternoons of several terms are devoted to laboratory practice, including analysis of farm products.

Zoology and Entomology—In Zoology the larger groups of the animal kingdon are taken up and described in lectures which are illustrated by means of diagrams, models, or the objects themselves, and the students are required to make critical studies of typical animals of each group. Such laboratory practice is regarded an indispensable training for the more advanced study of the higher animals, and also forms the basis of the study of Historical Geology.

The studies in Entomology are conducted in a similar manner. After a general review of the orders has been given, illustrated by such common insects as are familiar to all, the beneficial and injurious are taken up more in detail, their round of life described, together with the injuries the latter do to the products of the farmer, the gardener and the fruit raiser, as well as to our forests and building materials, and the best known means of keeping them in check. For the purpose of making the instruction as practical and impressive as may be, many of the injurious insects are carried through their transformations in the class-room, where each student can note the various changes from day to day, and learn to recognize these insect enemies in any stage of their existence; and each member of the class is required to devote some time in field-collecting, and in observing the habits and work of insects in nature.

The subject of bee-keeping is taken up quite at length; the different kinds of bees in a swarm, their habits, anatomy, and the mode of collecting the different products are all described and illustrated by means of elaborate models, while artificial swarming, the mode of hybridizing a swarm, and the advantages of the same, with the most approved methods now in use for the care and management of bees, are also fully described.

Comparative Anatomy—Under comparative anatomy are taken up the anatomy and physiology of our domestic animals, together with a brief outline of our wild animals, so far as time permits. This is followed by instruction in stock breeding and veterinary science.

Mineralogy and Geology—A preliminary course of lectures is given on mineralogy, followed by laboratory practice in the determination of minerals, and in lithology, special attention being called to gypsum, limestone, and such other minerals as are of direct importance to the students of agriculture.

The instruction in Geology is by means of illustrated lectures and excursions, critical attention being given to the origin and formation of soils.

Law—A course of lectures is given to the Senior Class on International and Rural Law.

Throughout the course, the endeavor is made to inculcate established principles in agricultural science, and to illustrate and enforce them to the full extent admitted by the appliances of the laboratory and the farm. So far as possible, students are associated with whatever experimental work is carried on, that they may be better fitted to continue such work in after life.

Those who complete this course receive instruction also in Mathematics, French, German, English Literature, Logic. United States Constitution, Political Economy, and Mental and Moral Philosophy, and on presenting satisfactory theses upon some agricultural topic, are entitled to the degree of Bachelor of Science.

The Course in Science and Literature includes French and German, the general, mathematical, and most of the scientific studies of the agricultural course. Instead of certain branches quite purely technical in the latter course, History, and English and American Literature are substituted.

In the special laws of the State passed in 1872, it is provided that young ladies "who possess suitable qualifications for admission to the several classes may be admitted as students in the college."

In arranging the course in Science and Literature, reference has been had to this enactment. From this course, however, young men who desire it are not excluded, as on the other hand, young ladies are not excluded from any of the other courses.

COURSE IN CIVIL ENGINEERING.

FIRST YEAR.

First Term.	*Second Term.*
Solid Geometry.	Logarithms and Trigonometry.
Rhetoric.	Botany.
Physiology.	French.
P. M. Free-Hand Drawing.	Mechanical Drawing. (F. of T.)
Dissecting.	P. M. Botanical Laboratory Work. (L. of T.)
Labor on Farm.	Labor on Farm.

SECOND YEAR.

First Term.	*Second Term.*
Descriptive Geometry.	Analytical Geometry.
General Chemistry.	German.
French.	Physics. (F. of T.)
Physics.	Surveying. (L. of T.)
P. M. Mechanical Drawing.	Qualitative Chemistry.
Laboratory Work in Chemistry.	P. M. Field Work.

THIRD YEAR.

First Term.	*Second Term.*
Calculus.	Calculus. (F. of T.)
Henck's Field Book and R. R. Surveying.	Decriptive Astronomy. (L. of T.)
German.	Mechanics. (F. of T.)
P. M. Field Work and Drawing.	Graphic Statics. (L. of T.)
	Logic.
	P. M. Isometric and Cabinet Projection and Perspective.

FOURTH YEAR.

First Term.	*Second Term.*
Civil Engineering.	Civil Engineering, Designs and Specifications.
Stereotomy. (F. of T.)	Mineralogy and Geology.
Sanitary Engineering. (L. of T.)	U. S. Constitution.
Practical Astronomy.	P. M. Designing and Thesis Work.
Political Economy.	
P. M. Higher Surveying.	

EXPLANATORY STATEMENTS.

The object of this course is to give the student a thorough knowledge of Higher Mathematics, Mechanics, Astronomy and Drawing, and, at the same time, a thorough drill in the use and care of the ordinary engineering instruments and in the application of the mathematical principles and rules, so that the graduates can at once be made useful in engineering work and be fitted, after a limited amount of experience in the field, to fill positions of importance and trust. The course is also arranged so as to afford, so far as can be, the education required to prepare the graduate for a responsible position among *men*, as well as among engineers.

In this course the work is identical with that of the other courses during the first year. During the fall term of the Sophomore year, students in this course work two hours each afternoon, in the drawing room, on free-hand and mechanical drawing. In the last term of this year, the subject of land surveying is taken up. The first eight weeks are devoted to tinting, shading, etc., in water colors, while the remaining twelve weeks are given to practical surveying. Besides an hour's recitation each day, the class is engaged two hours, either in the field or drawing room, becoming familiar with the use and care of instruments, putting into practice the problems found in the text-book, and making actual surveys.

In the first term of the Junior year, Henck's Field Book is used as a text-book, from which the student obtains methods of running railroad curves, putting in switches and turnouts, setting slope-stakes, and the calculation of earthwork. This is supplemented with examples worked by the student, and lectures on levelling, preliminary and final surveys, and on the resistance to trains offered by grades and curves, together with the theory and construction of country roads, streets and pavements. These methods of the text-book, so far as possible, are applied in the field by the execution of the preliminary and final surveys of a railroad from the college buildings to some point on the Maine Central R R., together with the necessary drawings, calculation of earthwork and estimate of the cost of building and equipping the same.

The subject of Applied Mechanics is taken up the last term of this year, in which the students receive a thorough training in the principles underlying construction, illustrated as far as possible by practical examples, in which these principles are applied. During

this term, each student in the class works two hours each day in the drawing room, where isometric, cabinet and perspective projection are taught by means of lectures and problems drawn by the students.

During the first term of the Senior year an extended topographical survey, with the plane table and stadia measurements, is made, based upon a previous trigonometrical determination of the principal points. During this term the students are also taught the use of the current meter and apply their knowledge in the actual measurement of the volume of the Stillwater river.

In the recitation room during this term the principles of the strength of materials are taken up, supplemented by information as to durability, preservation and fitness for special purposes. The theories of ties, struts, beams, foundations, retaining walls and arches, are fully treated.

Stone cutting is taken up this term, by lectures and practical problems, each student being required to make a complete set of working drawings of the most common forms of masonry arches.

Six weeks of this term are devoted to sanitary engineering; especial attention being given to ventilation, heating, purity of water supply and the proper drainage of houses and towns.

The first part of the last term of this year is devoted to the theory of roof and bridge trusses, the principles of hydraulics as applied in engineering practice, lectures on the locomotive engine, while the greater part is given to the application of the principles already learned, to the designing and calculation of various kinds of engineering structures, and to making out estimates and specifications.

This, together with the preparation of a satisfactory thesis, completes the work in the course of Civil Engineering.

MINERALOGY AND GEOLOGY.

Mineralogy is taught by an introductory course of lectures, followed by laboratory practice in the determination of minerals and rocks, especial attention being given to their value for building purposes. This is immediately followed by a course of lectures in Geology, together with excursions for the purpose of studying the rocks *in situ*, and also superficial deposits. Critical examinations are made in various railroad cuts of the hardness, slaty structure, jointed structure, etc., as bearing upon the cost of excavation.

ASTRONOMY.

In the last part of the spring term, Descriptive Astronomy is taken by the students of the Junior Class, and Practical Astronomy in the first term, Senior year.

The course in Astronomy is designed to enable students to determine with accuracy geographical positions. The principal instruments employed are chronometer, sextant, transit, and for work of precision, the Repsold vertical circle, an instrument made in Hamburg, Germany, in 1874, for this institution. Practical instruction is given in the use of these instruments, and in the most approved methods of reducing observations for the determination of latitude and longitude.

DEGREES.

Students in this department secure the degree of Bachelor of Civil Engineering on graduating, with the full degree of Civil Engineer three years after, on presentation of a satisfactory thesis, with proof of professional work or study.

COURSE IN MECHANICAL ENGINEERING.

FIRST YEAR.

First Term.	*Second Term.*
Solid Geometry.	Logarithms and Trigonometry.
Physiology.	Botany.
Rhetoric.	French.
Free Hand Drawing.	Mechanical Drawing. (F. of T.)
Dissecting.	Botanical Lab'y Work. (L. of T.)
P. M. Labor on Farm.	P. M. Labor on Farm.

SECOND YEAR.

First Term.	*Second Term.*
Descriptive Geometry.	Analytical Geometry.
French.	Drawing and Kinematics.
Physics.	Physics.
General Chemistry.	Surveying.
P. M. Carpentry.	Qualitative Chemistry.
Lab'y Work in Chemistry.	P. M. Mechanical Drawing and Forge Work.

THIRD YEAR.

First Term.	*Second Term.*
Calculus.	Calculus. (F. of T.)
Kinematics.	Descriptive Astronomy. (L. of T.)
Vise Work.	Mechanics and Machine Design.
P. M. Machine Drawing.	Logic.
	Elements of Mechanism.
	Link and Valve Motions.
	P. M. Isometric and Cabinet Projection and Machine Drawing.

FOURTH YEAR.

First Term.	*Second Term.*
Steam Engineering.	Steam Engineering.
Practical Astronomy.	Wood Turning.
Political Economy.	Hydraulic Engineering.
P. M. Machine Drawing and Designing.	Mineralogy and Geology.
	U. S. Constitution.
	P. M. Machine Drawing, Designing and Thesis Work.

EXPLANATORY STATEMENTS.

It is the design of this course to give such a knowledge of Mathematics, Mechanics, Principles of Mechanism, Drawing and Manual Art as shall enable the student successfully to enter practical life as an engineer, with the same thorough education in subjects required to fit him for the general duties of life as is afforded by the other courses.

The first two years' work is identical with that of the students in Civil Engineering, except that carpentry and forge work are taken the second year in place of part of the drawing. In the Junior year, the first term is devoted to the geometry of machinery, showing the students how different motions may be obtained independently of the power required. Special attention is here given to the subject of gearing, and a full set of problems worked out, illustrating cases commonly occurring in practice. In the second term of this year the subject of the geometry of machinery is continued by lectures on other methods of transmitting motion, as by belts, cans, couplings, and links. Considerable time is given to the study and designing of the various valve and link motions used on the steam engine. During the same term instruction is given in mechanics and the laws of the strength of materials, the student being required to design machine details in accordance with those laws.

The first part of the first term, Senior year, is employed in studying the laws of the expansion of steam and their influence upon the construction of steam engines and boilers, the subject being illustrated by experiments on the shop engine, with the aid of an indicator. During the remainder of the term, the students are engaged in designing engines and other machines, and in making detail drawings of the same, such as would be required to work from in the shop.

During the last term, Senior year, the study of steam engineering is continued in its application to compound engines, and the subject of hydraulic engineering is taken up briefly, by lectures on the storage of water for power and the theory and construction of modern water wheels.

TEXT-BOOKS AND BOOKS OF REFERENCE.

Weisbach,	Mechanics of Engineering.	Smith,	Steam Engine.
Goodeve,	Elements of Mechanism.	Smith,	Steam Boilers.
MacCord,	Kinematics.	Trowbridge,	Steam Boilers.
MacCord,	Slide Valve.	Zeuner,	Valve and Link Motions.
Van Buren,	Strength of Machinery.	Auchincloss,	Valve and Link Motions.
Knight,	Mechanical Dictionary.	Clark,	Manual.

SHOP WORK.

There are now three shops equipped according to the Russian system, and work in these is required of all students in this course. The first term of the Sophomore year, two hours of each day are devoted to work in carpentry, special attention being given to accuracy of workmanship.

During the second term of the same year, the student receives instruction in forge work, including the welding and tempering of steel. A course in vise work during the first term of the Junior year gives the student practice in the various methods of shaping and fitting metals by the use of the chisel, hack-saw and file. During their second term, the Junior students in this course take turns in running the shop engine, and are taught the rules of safety and economy in this branch of Engineering. Instruction in wood-turning is given during the last term of the Senior year.

DRAWING.

The work in drawing commences with a course in Free-Hand and Elementary Mechanical Drawing, extending through the Sophomore year.

The first term of the Junior year, the student spends the time allotted to drawing in working out practical problems on the construction of gear teeth, cams, etc., and in elementary practice in line-shading and tinting.

The second term of this year is devoted to isometric projection, and the making of finished drawings in ink and in water colors. In the first term of the Senior year, the student prepares an original design of some machine, makes working drawings of its details on tracing cloth, and finally prepares copies by the blue-print process. The afternoon work of the spring term consists of making calcula-

tions for designs of engines and boilers, the construction of the necessary working drawings, and making thesis drawings.

The remarks under Course in Civil Engineering, with regard to Astronomy, Mineralogy and Geology, apply also to this course, and to them reference is made.

Theses are required of all students as a condition of graduation, and must be on some subject directly connected with Mechanical Engineering.

Students in this course receive the degree of Bachelor of Mechanical Engineering upon graduation, with full degree of Mechanical Engineer three years afterwards upon presentation of a satisfactory thesis and proof of professional work or study.

COURSE IN CHEMISTRY.

FIRST YEAR.

First Term.	*Second Term.*
Physiology.	Botany.
Rhetoric.	French.
Solid Geometry.	Logarithms and Trigonometry.
P. M. Labor on Farm.	P. M. Labor on Farm.)
Free Hand Drawing.	Mechanical Drawing. (F. of T.)
Dissecting.	Botanical Lab'y Work. (L. of T.)

SECOND YEAR.

First Term.	*Second Term.*
General Chemistry.	Qualitative Chemistry.
Botany.	Physics.
French.	German.
Physics.	Surveying.
P. M. Lab'y Work in Botany, Physics, Chemistry.	P. M. Field Work. Laboratory Physics.

THIRD YEAR.

First Term.	*Second Term.*
Chemistry.	Chemistry.
German.	Zoology and Entomology.
English and American Literature.	Logic.
P. M. Laborartoy Work.	P. M. Laboratory Work.

FOURTH YEAR.

First Term.	*Second Term.*
Chemistry.	Chemical Laboratory Work.
Comparative Anatomy.	Mineralogy and Geology.
History of Civilization.	U. S. Constitution.
Political Economy.	P. M. Laboratory Work.
P. M. Laboratory Work.	

EXPLANATORY STATEMENTS.

This course aims to supply a want felt by students who wish to enter certain industries in which a somewhat extensive knowledge of Chemistry is important. The first two years are mainly like those of the other courses, Qualitative Analysis being, however, obligatory for these students in the second term of the Sophomore year.

During the junior year, daily recitations are held in advanced Inorganic Chemistry. In the Senior year, advanced Organic Chemistry is taken up. Sophomores have one exercise a week in Elementary Chemical experiments. The afternoons are devoted to Quantitative Chemical Analysis by the Junior and Senior students of the course. The work consists of the most useful gravimetric and volumetric methods, beginning with the simple estimations, which are followed by more complex analyses of alloys, minerals, fertilizers, farm products, &c. A short course in the assay of gold and silver is also given.

The class-room text-books used by this department are: Remsen's Chemistry and Naquet's Principes de Chimie. In the Laboratory are used: Cratt's Qualitative Chemical Analysis, Fresenius' Quantitative Chemical Analysis, Frankland's Agricultural Chemical Analysis, Flint's Examination of Urine, Rickett's Notes on Assaying, Appleton's Quantitative Analysis, and Classen's Quantitative Analysis.

Valuable books of reference are found in the library.

Students taking qualitative analysis must furnish a deposit of at least five dollars when they begin; those taking quantitative analysis are required to deposit at least seven dollars. Students taking the Course in Chemistry or an extended course in quantitative analysis are expected to provide themselves with a small platinum crucible.

The students, after passing all the required examinations and presenting satisfactory theses upon some chemical subject, graduate with the degree of Bachelor of Science.

Post graduate and special students can make arrangements with the Professor of Chemistry for an advanced or special course of laboratory work and recitations.

TABLE OF HOURS—First Term.

	Seniors.	Juniors.	Sophomores.	Freshmen.
7.30 A. M.	Chapel Services.	Chapel Services.	Chapel Services.	Chapel Services.
7.45 A. M.	History of Civilization, I, IV, V. Civil Engineering, II.	German, I, II, IV, V. Kinematics, III.	General Chemistry.	Geometry.
8.40 A. M.	Stock Feeding and Dairy Farming. I. Advanced Chemistry, IV. Practical Astronomy, II, III, V.	English and American Literature, I, IV, V. Calculus, II, III.	Botany, I, IV, V. Descriptive Geometry, II, III.	
9.35 A.M.	Stereotomy (f. of t.), II. Sanitary Engineering (l. of t.), II. Comparative Anatomy, I, IV, V. Steam Engineering, III.	Agricultural Engineering, I. Vise Work, III. Advanced Chemistry, IV.	French.	Rhetoric.
10.30 A.M	Political Economy.	Agricultural Chemistry, I. Field Book, Road and Railroad Surveying, II. Vise Work, III.	Physics.	Physiology.
P. M.	Laboratory and Farm Practice, I. Higher Surveying, II. Designing and Drawing, III. Laboratory Work, IV. German Translations, V. Military Exercises.	Laboratory Work, I, IV. Field Work, II. Machine Drawing, III. Analysis of English Authors and French Translations, V. Military Exercises.	Laboratory Work in Chemistry. Laboratory Work in Botany, I, IV, V. Laboratory Work in Physics. Mechanical Drawing, II. Carpentry, III. Military Exercises.	Labor on Farm. Free-Hand Drawing. Dissecting, two hours per week. Military Exercises.

Note.—Roman numerals refer to courses as follows: I, Agriculture; II, Civil Eng.; III, Mech Eng.; IV, Chemistry; V, Science and Lit.

TABLE OF HOURS—SECOND TERM.

	SENIORS.	JUNIORS.	SOPHOMORES.	FRESHMEN.
7.30 A. M.	Chapel Services.	Chapel Services.	Chapel Services.	Chapel Services.
7.45 A. M.	Mineralogy. Geology.	Agricultural Chemistry, etc., I. Calculus (F. of T.), II, III. Advanced Chemistry, IV. Descriptive Astronomy. (L. of T.) II, III, V.	German, I, II, IV, V. Drawing and Kinematics, III.	
8.40 A. M.	Mental and Moral Science, I, V. Civil Engineering (F. of T.), II. Contracts, Specifications, etc., II. Wood Turning, III. Laboratory Work, IV.	Logic.	Qualitative Analysis. Analytical Geometry, II, III.	Botany.
9.35 A.M.	Stock Breeding and Veterinary Science and Cultivation of Cereals, I. Steam Engineering & Hydraulics, III. Laboratory work, IV.	Zoology and Entomology, I, IV, V. Applied Mechanics (F of T.), II. Graphic Statics (L. of T.), II. Elements of Mechanism (F. of T.), III. Link and Valve Motion (L. of T.), III.	Qualitative Analysis.	French.
10.30 A.M.	U. S. Constitution.	Zoology and Entomology, I, IV, V. Mechanics and Machine Design, III.	Physics. (F. of T.) Surveying, (L. of T.) English History (L. of T.), for ladies.	Logarithms and Trigonometry.
P. M.	Thesis and Laboratory Work, I. Designing and Thesis Work, II. Machine Drawing and Thesis Work, III. Laboratory Work, IV. Theme and Thesis Work, V. Military Exercises.	Laboratory and Garden Practice, I. Isometric and Cabinet Projection, and Perspective, II. Drawing, III. Laboratory Work, I, IV. German Translations, V. Military Exercises.	Forge Work, I, III. Field Work, I, II, IV, V. Laboratory Physics. French Translations, V. Military Exercises.	Labor on Farm. Mechanical Drawing. (F. of T.) Laboratory Work in Botany. (L. of T.) Military Exercises.

LABOR.

It is a characteristic feature of the college, that it makes provision for labor, thus combining practice with theory, manual labor with scientific culture.

The maximum time of required labor is three hours a day for five days in the week.

The larger part of the labor is educational, and for such labor no compensation in money is made. Students in the lowest class perform non-educational labor when required by the college and receive compensation, according to their industry, faithfulness and efficiency. The maximum price paid is ten cents an hour. In arranging for compensated labor, it should be understood that the college does not engage to furnish opportunities for such labor continuously, but rather as the farm and other interests require.

The students of the three upper classes carry on their principal labor in the laboratory, the drawing-rooms, the workshops, or in the field, and for such labor they receive no pecuniary consideration, since it is of a purely educational character.

MILITARY INSTRUCTION.

Thorough instruction in Military Science is given by an officer detailed by the Secretary of War from the active list, United States Army, and is continued throughout the entire course. All able-bodied male students receive instruction in the school of the soldier, company and battalion drill. Arms and equipments are furnished by the United States Government. The uniform, furnished by students, is a dark blue blouse similar to the regulation blouse of an army officer, but with the State of Maine buttons and gilt braid on cuff, and for officers, the chevrons and shoulder straps of red and gold; the pants of lighter blue with gilt braid on outside seams; the cap blue with gold wreath ornament. The uniform is required to be worn during military exercises, and it is recommended that it be worn at recitations and at other class and general college exercises.

LOCATION.

The college has a pleasant and healthful location, between the villages of Orono and Stillwater, about a mile from each. Stillwater

river, a tributary of the Penobscot, flows in front of the buildings, forming the western boundary of the college farm, and adding much to the beauty of the surrounding scenery.

The Maine Central Railroad, over which trains pass many times each day, has a station at the village of Orono. The college is within nine miles of the city of Bangor, and is consequently easily accessible from all parts of the State.

FARM AND BUILDINGS.

The college farm contains three hundred and seventy acres of land, of high natural productiveness, and of great diversity of soil, and is therefore well adapted to the experimental purposes of the Institution.

Wingate Hall, the building first erected, affords excellent accommodations for a limited number of students. The lower rooms of this building are appropriated to general and class purposes.

Oak Hall contains forty-eight rooms, and has connected with it a boarding-house for students. With these buildings, the Institution furnishes desirable accommodations for one hundred and twenty-five students.

The Laboratory contains two apparatus rooms, a lecture room, a weighing room, a recitation room, and rooms for analytical and other purposes, and is in all respects admirably adapted to the wants of the chemical department.

The Shop, built during the summer of 1883, is equipped for instruction in three departments of mechanical work, viz: filing, forging and working in wood.

Coburn Hall is occupied by the departments of Natural History and Agriculture. In addition to the rooms needful for the two departments named, it contains a large audience-room, a commodious room for the College Library, and a room especially arranged for a Physical Laboratory.

APPARATUS.

The College is furnished with valuable apparatus for the departments of Agriculture, Chemistry, Physics, Civil Engineering and Mechanical Engineering, to which additions are made as the exigencies of the several departments require. Models have been

made by instructors and students and others have been purchased that serve for purposes of instruction.

LIBRARY.

The library contains above six thousand volumes, a large part of which has been obtained through the generosity of the late Ex-Governor Coburn. Valuable additions have also been made to it by other friends of the college, only a small number of the volumes having been purchased with money appropriated by the State. It is earnestly hoped that so important an auxiliary in the education of the student will not be disregarded by the people of the State, and that liberal contributions will be made to the library, not only of agricultural and scientific works, but also of those profitable to the general reader.

The following periodicals are supplied by the college to the library: American Journal of Science and Art, Popular Science Monthly, National Live Stock Journal, Journal Royal Agricultural Society (England), Journal Franklin Institute, American Engineering Magazine and Railroad Journal, Century Magazine, Atlantic Monthly, Harper's Monthly Magazine, North American Review, Forum, Education, American Machinist, Science, American Naturalist, Botanical Gazette, The Engineer, Agricultural Science, Political Science Quarterly, Engineering News, Electrical Engineering, Garden and Forest.

READING ROOM.

The reading room is supplied with a number of valuable newspapers and periodicals. Grateful acknowledgment is herewith made for the following papers, generously sent by the proprietors to the college:

American Cultivator, American Sentinel, Aroostook Republican, Gospel Banner, Eastern Farmer, Kennebec Journal, Lewiston Journal, Maine Farmer, Maine Industrial Journal, New England Farmer, Oxford Democrat, Piscataquis Observer, Portland Transcript, Somerset Reporter, Daily Whig and Courier, Zion's Herald, Official Gazette U. S. Patent Office, Bangor Daily Commercial, Farmington Chronicle, Phillips Phonograph, Springvale Advocate, Mount Desert

Herald, Maryland Farmer, Dexter Gazette, Eastport Sentinel, Bee Journal, American Garden, Mirror and Farmer, Temperance Record, The Industrialist (Kansas), Oldtown Enterprise, Aroostook Herald, Hampden News, Oxford County Advertiser, Boston Evening Transcript, Bangor Daily News, Morning Star, Rockland Free Press, North Star, Rockland Courier Gazette, Aroostook Times, National Farmer, The Farmer's Home.

The following papers are furnished by subscription, principally by the students:

American Machinist, Cultivator and Country Gentleman, Scientific American Supplement, Eastern Argus (furnished by S. W. Gould), Lewiston Evening Journal, Journal of Education, Sanitary Engineer, Popular Science News, Washington Post, Boston Herald, Portland Express, Boston Record, Boston Globe (furnished by A. M. Miller), Portland Daily Press, Weekly Inter Ocean, Harper's Weekly, Science.

CABINET.

The natural history collections of the college include about nine hundred named and mounted species of the flowering plants of Maine, the Blake Herbarium consisting of foreign and indigenous phœnogams and cryptogams numbering about fourteen thousand specimens, the Ellis collection of North American fungi of twenty-three hundred species, a collection of several hundred specimens of marine algæ and several small miscellaneous collections, a collection of sections of tropical species of wood presented by the Department of Agriculture at Washington, and a similar collection of the United States species from the Census Bureau.

The college also has a working collection of carefully selected forms representing the prominent groups of the animal kingdom; a large and valuable collection of Maine insects, carefully mounted and authentically named, and a fine collection of marine animals in alcohol, mostly from the coast of Maine, donated to the college by the United States Fish Commissioner. The above collections, together with charts, diagrams, skeletons, models, microscopes and other apparatus for illustrating the studies in natural history, are on exhibition in Coburn Hall.

On exhibition also are a good series of the more common minerals and ores supplemented by a collection presented by the National Museum, a collection of building stones from many of the Maine

quarries, and a collection presented by the Smithsonian Institution, together with a series of microscopical sections of building stones, given by G. P. Merrill, M. S. Ph. D. In the same room is exhibited a series of typical fossils which illustrate the various geological horizons, together with a collection of Indian stone implements, and various curiosities presented by the friends of the Institution.

PUBLIC WORSHIP.

All students are required to attend daily prayers at the college, and public worship on the Sabbath at some one of the neighboring churches, unless excused by the President.

YOUNG MEN'S CHRISTIAN ASSOCIATION.

The students of the college maintain an active organization of the Young Men's Christian Association, holding meetings weekly. Its elevating influence in the college is clearly manifest, especially in the earnest and high moral and Christian life of those who constitute its membership.

EXPENSES.

Tuition is thirty dollars a year, divided equally between the two terms. The cost of material and repair of tools for the course of instruction in the vise shop is ten dollars; in the forge shop, nine dollars; in the wood shop, four dollars.

Laboratory expenses are at cost of glassware broken, injury to apparatus, and chemicals used. A deposit of five dollars is required of students entering upon a term's work in Qualitative Analysis, and of seven dollars per term from students in Quantitative Analysis. Room rent is four dollars for the first term and five dollars for the second term of the college year.

Students residing too far from the college to *live* at home are required to room and board at the college, unless special permission to live elsewhere be granted by the President. Students receiving such permission pay room rent and fuel rent as though residing at the college.

Bedding and furniture must be supplied by the students, who also furnish their own lights. Tables, chairs, bedsteads, sinks and husk mattresses can generally be purchased at the college at reduced rates.

The price of board will be at cost, and will be determined from term to term. In the history of the college, the price has ranged between $2.60 and $3.12 per week; washing averages not more than sixty cents per dozen.

The warming by steam of single rooms (each suitable for two occupants) has averaged for the past six years about eleven dollars a room for each term. The expense of heating recitation rooms and rooms for general purposes has been about two dollars a term for each student, and the incidental expenses, including pay for the services of janitor, pay for bringing mail, for cleaning and renovating rooms, for general repairs, &c., have been about three dollars per term for each student.

From the items given, with an allowance of a few dollars a year for necessary text-books, quite an accurate estimate of needful expenses can be made.

The college term bills are payable, one-half at the commencement, and the remainder at or before the close of each term.

As security for the payment of college bills, a bond of one hundred and fifty dollars with satisfactory securities is required. A blank form of bond will be given with the ticket of admission.

MEANS OF DEFRAYING EXPENSES.

The terms are so arranged that the long vacation occurs in the winter, that students may have an opportunity to teach during that time. The summer vacation is in the haying season, when farm labor is most profitable. By availing themselves of the opportunities thus afforded, together with the compensation for labor on the college farm, industrious and economical students can cancel the greater part of their college expenses.

SCHOLARSHIPS.

The trustees make provision for the establishment of free scholarships by the following action:

Voted, That any individual or society paying to the Treasurer a sum not less than seven hundred and fifty dollars, shall be entitled to one perpetual free scholarship in the college.

OFFICERS OF THE ALUMNI ASSOCIATION.

PRESIDENT.

PROF. G. H HAMLIN, Orono.

RECORDING SECRETARY.

PROF. WALTER FLINT, Orono.

CORRESPONDING SECRETARY.

CHAS. S. BICKFORD, Presque Isle.

TREASURER.

PROF. W. H. JORDAN, Orono.

NECROLOGIST.

E. M BLANDING, Bangor.

CLASS SECRETARIES.

1872. E. J. HASKELL, Saccarappa.
1873. J. M. OAK, Bangor.
1874. W. BALENTINE, Orono.
1875. E. F. HITCHINGS, Bucksport.
1876. N. P. HASKELL, Orono.
1877. S. W. GOULD, Skowhegan.
1878. E. C. WALKER, Lovell.
1879. F. E. KIDDER, Denver, Colo.
1880. A. H. BROWN, Oldtown.
1881. A. T. INGALLS, So. Bridgton.
1882. C. S. BICKFORD, Presque Isle.
1883. C. E. PUTNAM, Boston, Mass.
1884. G. H. ALLEN, Portland.
1885. J. N. HART, Orono.
1886. R. K. JONES, Findlay, Ohio.
1887. H. S. WEBB, Orono.
1888. W. J. HANCOCK, Saco.
1889. F. P. BRIGGS, Orono.

GRADUATES.

CLASS OF 1872.

Name and Occupation. *Residence.*

Benjamin F. Gould, C. E., Farming and Real Estate, Holliston, California

George E. Hammond, C. E., Civil Engineer, Navy Yard, Portsmouth, N. H.

Edwin J. Haskell, B. S., Silk Manufacturer..... Saccarappa

Heddle Hilliard, C. E., Civil Engineer ..... Oldtown

Eber D Thomas, B. S , Civil Engineer..... Grand Rapids, Mich.

George O. Weston, B S., Farmer. .... Norridgewock

CLASS OF 1873.

Russell W. Eaton, C. E., Supt. Merchant's M'f'g. Co. Montreal, Quebec

George H. Hamlin, C. E., Professor Civil Engineering, Maine State College, Orono

Fred W. Holt, C. E. Supt. G. S. R. R.,..... St. George, N. B.

John M. Oak, B. S., Salesman .... Bangor

*Charles E. Reed, C. E., Agent Columbia Bridge Co., Dayton, Ohio

Frank Lamson Scribner, B. S., Professor Botany and Horticulture, University, Knoxville, Tenn.

Harvey B. Thayer, B. S., Druggist..... .. .. Presque Isle

CLASS OF 1874.

William A. Allen, C. E., Chief Engineer, M. C. R. R ...Portland

Walter Balentine, M. S., Professor of Agriculture, State College, Orono

William H Gerrish, B S., M. D , Physician.....Royalton, Vt.

John I. Gurney, B. S., Florist..... Dorchester, Mass.

David R. Hunter, B. S..... Oakland, Cal.

Louise H. Ramsdell, B. S , (Mrs. Milton D. Noyes, Farmer,) Atkinson

*Deceased.

CLASS OF 1875.

Name and Occupation. *Residence.*

Solomon W. Bates, C. E., Solicitor of Patents and Mechanical Engineer, Portland
Wilbur A. Bumps, C. E., M. D., Physician.....Dexter
*Samuel H. Clapp, C. E., Teacher.....Danvers, Mass.
Lewis F. Coburn, C. E., Civil Engineer.....Crescent City, Cal.
Charles F. Colesworthy, B. S., Merchant.....Pendleton, Oregon
*Charles F. Durham, C. E., Teacher.....Crescent City, Cal.
Alfred M. Goodale, B. S., Supt. Boston M'f'g Co., Waltham, Mass.
Edson F. Hitchings, C. E., M. S., Instructor Natural Science, E. M. Con. Sem'y, Bucksport
Whitman H. Jordan, M. S., Director Agricultural Experiment Station, Orono
Edward D. Mayo, M. E., Mill Furnisher and Draughtsman, Minneapolis, Minn.
Albert E. Mitchell, M. E., Engineer of Signals, N. Y. & L. E. & W. R. R., New York City, N. Y.
Allen G. Mitchell, C. E., Div. Supt. Penn. R. R., Gallitzen, Penn.
*Fred L. Moore, B. S., Teacher.....California
Luther W. Rogers, B. S., Merchant.....Waterville
Minott W. Sewall, M. E., with Pneumatic Dynamite Gun Co., New York City.
George M. Shaw, C. E , Principal of Schools.....Oroville, Cal.
Wesley Webb, M. S., Editor Farm and Home.....Dover, Del.
*Edgar A. Work, C. E.....U. S. Military Academy

CLASS OF 1876.

Edmund Abbott, B. S., M. D., Physician.....Providence, R. I.
Charles P. Allen, B. S., Lawyer and Banker.....Presque Isle
Elbridge H. Beckler, C. E., Chief Engineer, and Supt. Mon. Cen. R'y, Helena, Mon.
Fred M. Bisbee, C. E., Druggist.....Wachita, Kansas
Edward M. Blanding, B. S., Editor Maine Industrial Journal, Bangor
Charles M. Brainard, B. S., Lumberman.....Skowhegan
*George H. Buker, B. S., Apothecary.....Presque Isle
Florence H. Cowan, B. S., Teacher.....Lynn, Mass.

*Deceased.

Name and Occupation. *Residence.*

Oliver Crosby, M. E Treasurer and Manager, American M'f'g Co., St. Paul, Minn.
Vetal Cyr, B. S., Principal Madawaska Training School, Fort Kent
James E. Dike, C. E., City Engineer and County Surveyor, Devil's Lake, Dakota
*Willis O. Dike, B. S. ..... Gorham
Horace M. Estabrooke, M S., Ass't Prin. Normal School, Gorham
Arthur M. Farrington, B. S., D. V. S., Ass't U. S. Bureau of Animal Industry, Washington, D. C.
George O. Foss, C. E., Ass't Engineer, N. P. R. R., Butte, Mon.
William T. Haines, B. S., L. L. B., Lawyer..... .. Waterville
Henry F. Hamilton, B S., D. D. S., Dentist. .....Boston, Mass.
Newall P. Haskell, B. S., Farmer .... Orono
Edward S. How, M. E., Office Light House Board, Treas. Dept., Washington, D. C.
Philip W. Hubbard, B. S., Nursery Business... .. Alhambra, Cal.
Samuel M. Jones, M. E., Merchant ....Worcester. Mass.
Albert A. Lewis, B. S., Clergyman ... . Bath
Herbert A. Long, M. E., Farmer..... ...Roque Island, Machias
Luther R. Lothrop, C. E., Division Engineer N. Pac. & Mon. R. R., Helena, Mon
Nelson H. Martin, B. S., Clerk ..... Ft. Fairfield
Charles E. Oak, M. E., Lumberman..... ....Caribou
George D. Parks, C. E., Lawyer and Civil Engineer, Fort Payne, Ala.
Hayward Pierce, B. S., West Waldo Granite Works .. Frankfort
Frank R. Reed, C. E., Carpenter ....Roxbury
Henry J. Reynolds, B. S., Druggist .....Eastport
Charles W. Rogers, M. E., Mechanical Engineer..... Chicago, Ill.
William L. Stevens, M. E., Commission Merchant, Minneapolis, Minn.
John H. Williams, B. S., Contractor & Surveyor, Elk River, Minn.

CLASS OF 1877.

Alvah D. Blackington, C. E., Chief Engineer, Erie & Wyoming R'y, Dunmore, Pa.
Robert B. Burns, C. E., Resident Engineer, A. & P. R. R., Williams, Arizona

*Deceased.

Name and Occupation. *Residence.*

Eugene H. Dakin, B. S., Sec'y and Treas., Industrial Journal, Bangor
Edward F. Danforth, B. S , Lawyer..... Skowhegan
Augustus J. Elkins, B. M. E., Ass't Manager Flour Mill, Fergus Falls, Minn.
Alicia T. Emery, B. S ..... Orono
Samuel W. Gould, B. S., Lawyer ..... Skowhegan
*Joseph C. Lunt, B. C. E , Civil Engineer, Mex. C. R. R., El Paso, Texas
Fred F. Phillips, B. S., Ins. Agent ..... Portland
*Samuel Shaw, B. M. E., Architectural Draughtsman, Boston, Mass.
Frank P. Stone, B. S., Farmer ..... Livermore Falls
Thomas J. Stevens, B. M. E., Druggist ..... Portland
George E. Sturgis, B. C. E., Druggist ..... Portland, Oregon
Charles E Town, B. C. E., U. S. Surveyor..... Helena, Montana
James W. Weeks, B. M. E., Architect .... No. Des Moines, Iowa
Nellie E. Weeks, B. S., (Mrs. Llewellyn Spenser) ..... Orono
Ivan E. Webster, B. S ..... Orono

CLASS OF 1878.

Emma Brown, B. S., Teacher (Mrs. Charles Gilman) ..... Enfield
Andrew J. Caldwell, B. M. E., Mech. Engineer, New York City, N. Y.
Cecil C. Chamberlain, B. S., Merchant. ..... Anoka, Minn
George E. Fernald, B C. E., Salesman ..... Waterloo, Iowa
James Heald, B S., City Engineer ..... Seattle, Wash.
John Locke, B. S..... With Maine Central R. R , Portland
Frank J. Oakes, B. C. E., Draughtsman..... Brooklyn, N. Y.
John C. Patterson, B. C. E., Ass't Engineer, N. P. R. R., Butte City, Mon.
Winfield E. Tripp, B. C. E , L.L. B., Lawyer .... Ashland, Wis.
Edward C. Walker, B. S., Lawyer ..... Lovell
Otis C Webster, B. S., Druggist .... Augusta

CLASS OF 1879.

Harry B. Bean, C. E., Chief Engineer, G. &. U. Railway, Grafton, Mass.

* Deceased.

Name and Occupation. *Residence.*

Edward J. Blake, C. E., Chief Engineer, C. B. & Q. R. R., Chicago, Ill.
Simon P. Crosby, B. S., Lawyer ..... St. Paul, Minn.
John D. Cutter, B. S., M. D , Physician ..... Chicago, Ill.
Wilbur F. Decker, M. E., Mech. Engineer .. Minneapolis, Minn.
David A. Decrow, B. C. E., Ass't Sup't and Ass't Engineer, Holly M'f'g Company, Lockport, New York
Willis E. Ferguson, B. S., Farming and Real Estate, Alhambra, California
Charles W. Gibbs, C. E., Chief Engineer, Silverton R. R., Silverton, Col.
Annie M. Gould, B. S., (Mrs. Loomis F. Goodale), St. Joseph, Mo.
*Nellie M. Holt, B. S., Teacher..... .... Orono
Frank E. Kidder, C. E., Architect.....Denver, Colorado
Mark D. Libby, B. C. E., Lawyer.....Kingman, Kan.
*Charles S. Loring, B. M. E., Machinist.. ... . Lewiston
George P. Merrill, M. S., Ph. D., Curator, Nat. Museum, Washington, D. C.
John W. Meserve, B. M. E., Chief Draughtsman, Yale & Towne M'f'g Co., Stanford, Conn.
Arthur L. Moore, B. S., Farmer.. ... . Waterville
Charles A. Morse, C. E , Div. Engineer, A. T. & S. F. R. R., Topeka, Kansas
Fred D. Potter, B. M. E , Engineer and Contractor, New York City
Alton J. Shaw, B. M. E., Draughtsman, E. P. Allis & Co., Milwaukee, Wis.
Percia A. Vinal, M. S., (Mrs. Albert White)..... Orono
George O. Warren, B. S., Farmer. .... Fryeburg
Herbert Webster, B. S., Nursery Business.....Alhambra, Cal.

CLASS OF 1880.

Horace W. Atwood, B. S , D. V. S., Veterinary Surgeon, Brockton, Mass.
James M. Bartlett, M. S., Analytical Chemist, Agricultural Experiment Station, Orono
Albert H. Brown, B. S., Banker..... ..... Oldtown

*Deceased.

Name and Occupation. *Residence.*

Marcie Davis, B. S , (Mrs. Joseph D. Stevens).. .. Denver, Col.
Fred B. Elliot, B. S., Farmer.. .. .. Bowdoinham
Sarah P. Farrington, B. S., (Mrs. George P. Merrill),
Washington, D. C.
Charles W. Fernald, B. S., Merchant and Postmaster, So. Levant
Fred W. Fickett, M. S., Farmer and Lawyer ... Galveston, Texas
George W. Lufkin, B. C. E., Ass't Engineer W. &. N. R. R.,
Wilmington, Del.
Frank A Mansfield, M. S., Clergyman..... Boston, Mass.
Annie A. Matthews, B. S., Teacher .... Stillwater
Henry W. Murray, B. C. E., Farmer and Teacher, Napa City, Cal.
Franklin R. Patten, C. E., Supt. Iron Works, Barnston,
Chester County, Pa.
Charles T. Pease, B. S., Division Engineer C. K. & N. R. R.,
Denver, Colorado
James F. Purington, B. S., Clerk, R. P. O.. ..... Bowdoin

CLASS OF 1881.

Henry H Andrews, M. E , Bank Cashier..... Callaway, Neb.
Henry W. Brown, M. S., Instructor Metaphysics, Literary
Institute, New Hampton, N. H.
Clara L Buck, B. S., (Mrs. Thomas W. Hine), Phœnix, Arizona
Fannie E. Colburn, B. S., (Mrs. Arthur L. Fernald),
Omaha, Nebraska
Edward H. Farrington, M. S., Agricultural Chemist,
Champaign, Ill.
Oliver C. Farrington, M. S., Post Graduate, Yale College,
New Haven, Conn.
Charles H. Fogg, B. C. E., Civil Engineer and Lumber Merchant,
Greensburg, Pa.
Aldana T. Ingalls, B. C. E..... So. Bridgton
Robert J. Johnson, B. C. E., City Engineer Dep't..St. Paul, Minn.
Clara A Libby, B. S., Millinery and Fancy Goods..... Augusta
Horace F. McIntire, B. M. E., Millwright..... Waldoborough
Charles L Moor, B. C E., Civil Engineer..... Hartland
*Benjamin F. Murray, B. C. E ..... Stillwater

*Deceased.

Name and Occupation. *Residence.*

Edwin W. Osborn, B. C. E , N. Pacific R R .. Brainard, Minn.
Oscar L. Pease, B. S. Station Agent So. Pac. R R.,
Gila Bend, Arizona
Harold M. Plaisted, B M. E. (M. E., Stevens Institute)
With H. A. Toutwin, Patent Expert, Springfield, Ohio
Alice I. Ring, B. S. .. ..Orono
Mary L. Ring, B. S., Teacher..... ..Orono
*Roscoe L. Smith, B. S., Farmer..... .....Lewiston
George W. Sturtevant, B. C. E., Civil Engineer and
Contractor, Minneapolis, Minn.
Frank S. Wade, B. S., M D., Physician ....New Richmond, Wis.
Walter A. White, B. C. E., L. L. B., Lawyer. ....Newport
*John B. Wilson, B. S., Medical Student..... ..... Orono
Levi A. Wyman, B. C. E , Lawyer and Civil Engineer...Ellsworth

CLASS OF 1882.

Charles S. Bickford, B. S., Editor Aroostook Herald, Presque Isle
Jacob L. Boynton, B. S. .. .. Marlboro, Mass.
Charles W. Brown, B. M. E., Draughtsman, Patent Office,
Washington, D. C.
Stephen J. Buzzell, B C. E., Civil Engineer .....Argyle
Oscar H. Dunton, B. M. E., Draughtsman,
With Harris Corliss Engine Co., Providence, R. I.
Walter Flint, M. E., Professor Mech. Engineering, M. S. C., Orono
George R. Fuller, B. S , Lawyer..... .....Tremont
Charles C. Garland, B. S., Banker and Dealer in Pine Land,
Minneapolis, Minn.
Joseph F. Gould, B. S., Lawyer..... .....Oldtown
Thomas W. Hine, B. S., Lawyer and Banker ...Phœnix, Arizona
Will R. Howard, B. S., Headmaster Northwestern
Military Academy, Highland Park, Ill.
Alonzo L. Hurd, B. S., Hampden Watch Co .....Canton, Ohio
Alfred J. Keith, B. C. E., Civil Engineer... ..... Oldtown
Frank I. Kimball, C. E , Mining Engineer.... .. Greensburg, Pa.
James H. Patten, B. S., M. D. Physician..... ....Ellsworth
Frederic M. Reed, B. M. E., Draughtsman,
B. &. S. M'f'g Co., Providence, R. I.
Gleason C. Snow, B. S., Farmer .....North Orrington

*Deceased.

Name and Occupation. *Residence.*

Avery P. Starrett, B. S., Farmer.....Warren
Frank H. Todd, B. C. E., City Engineer.....St. Cloud, Minn.
Eben C. Webster, B. S., Lumber Manufacturer.....Orono
Willard A. Wight, B. C. E., Supt. Gas Works.....Trinidad, Col.
Daniel C. Woodward, B. M. E., Draughtsman.....Madison, Wis.

CLASS OF 1883.

James H. Cain, B. S., Time Keeper.....Montague
Jonathan V. Cilley, B. C. E., Government Engineer,
Buenos Ayres, Arg. Rep., S. A.
Frank E. Emery, B. S., Superintendent Farm,
N. Y. Agricultural Expt. Station, Geneva, N. Y.
Arthur L. Fernald, B. S., Salesman.....Omaha, Nebraska
Bartholomew P. Kelleher, B. S., M. D., Physician.....Orono
Lucius H. Merrill, B. S., Analytical Chemist,
Agricultural Experiment Station, Orono
Jennie C. Michaels, B. S., Teacher.....Stillwater
Charles W. Mullen, B. C. E., Civil Engineer.....Oldtown
Truman M. Patten, B. C. E., Civil Engineer.....Bruce, Wis.
Harry W. Powers, B. S., Manufacturer.....Orono
Charles E. Putnam, B. C. E., Civil Engineer,
Franklin Park, Boston, Mass.
Lewis Robinson, Jr., B. M. E., M. D., Farmer.....North Bangor
George A. Sutton, B. C. E., Merchant.....Abbot
Levi W. Taylor, M. S., Principal Com. Dep't,
M. C. Institute, Pittsfield

CLASS OF 1884.

George H. Allan, B. S., Lawyer.....Portland
*Will H. Burleigh, B. C. E.....Vassalboro'
Mary F. Conroy, B. S., Teacher.....Brewer
Leslie W. Cutter, B. C. E., Contractor and Builder.....Bangor
Harriet C. Fernald, M. S., Library State College, Centre Co., Pa.
Elmer E. Hatch, B. S., Farmer.....Roseland, Mon.
John E. Hill, B. C. E., Civil Engineer.....Lander, Wyo.
Joseph G. Kelley, C. E., Civil Engineer.....Bar Harbor
Edwin F. Ladd, B. S., Chemist, Experiment Station,
Geneva, N. Y.

*Deceased.

Name and Occupation. *Residence.*

Clarence S. Lunt, B. C. E , City Editor Commercial.....Bangor
Fred L. Stevens, B. S., Medical Student.....Temple
William Webber, M. E., Draughtsman, McCormick H. M Works,
Chicago, Ill.

CLASS OF 1885.

George W. Chamberlain, B. S., Principal Grammar School,
Farmington, N. H.
Asher Dole, B. C. E., Civil Engineer.....Superior, Wis.
Frank O. Dutton, B. S., Clerk.....Bar Harbor
Henry T. Fernald, M. S., Post Graduate in Biology,
Johns Hopkins University, Baltimore, Md.
Elmer O. Goodrich, M. E., Engineer Ag. and Mech. Institute,
Hampton, Va.
George L. Hanscom, B. S., Clergyman.....Bliss, N. Y.
James N. Hart, B C. E., Instructor, Maine State College, Orono
Frank E. Hull, B. C. E., Civil Engineer.....Warren
Austin H. Keyes, B. C. E., Principal High School,
Stonington, Conn.
William Morey, Jr., B. C. E., Draughtsman, U. S. Signal Office,
Washington, D. C.
Joseph P Moulton, B S., Farmer.....Springvale
Leonard G. Paine, M. E., Draughtsman, Pratt & Whitney Co.,
Hartford, Conn.
Elmer E. Pennell, B. M. E., Machinist, Locomotive Works,
Providence, R. I.
Louis W. Riggs, B. M. E., Instructor Chemistry and Physics,
Mt. Hermon, Mass.
Fremont L. Russell, B. S., D. V. S., Veterinarian to
Agricultural Experiment Station, Orono

CLASS OF 1886.

Bert J. Allen, B. C. E., Principal High School.....Warren, Mass.
Josiah M. Ayer, B. C. E., Engineering Dep't B. & M. R. R ,
Boston, Mass.
George G. Barker, B. M. E., Draughtsman,
McCormick H. M. Co., Chicago, Ill.
George F. Black, C. E., Asst. Engineer, M. C R. R.....Portland

Name and Occupation. *Residence.*

John D. Blagden, B. C. E., U. S. Signal Service,
Knott's Island, N. C.
Heywood S. French. C. E., Civil Engineer.....Boston, Mass.
Edwin D. Graves, C. E., Chief Engineer, Somerset R. R.,
No. Anson
Ralph K. Jones, B. S., With Kellogg, M'f'g Co.....Findlay, Ohio
Elmer Lenfest, B. C. E , Civil Engineer.....Snohomish, Wash.
James F. Lockwood, M. E., Draughtsman.....New York City
George F. Lull, B. S., Chemist, Penobscot Chem. Fibre Co.,
West Great Works
Willis H. Merrian, B. C. E., Lawyer.....Spokane Falls, Wash.
Elmer E. Merritt, M. E., Draughtsman, McCormick H. M. Co.,
Chicago, Ill.
Arthur D. Page, B. C. E , Civil Engineer.....St. Cloud, Minn.
Irving B. Ray, B. C. E .....Harrington
Sidney S. Twombly, B. S., Student Vet. Medicine, McGill
University, Montreal, Canada

CLASS OF 1887.

John H. Burleigh, B. C. E., Civil Engineer, N. M. R. R.,
Vassalboro'
Luis V. P. Cilley, B. C. E., Government Engineer,
Buenos Ayres, Argentine Republic, S. A.
Bert E. Clark, B. S., Law Student.....Bar Harbor
Daniel W. Colby, B. S., Ass't Chemist and Dairy Supt.,
Agr. Exp't. Station, Burlington, Vt.
Edwin V. Coffin, B. C. E., Clerk.....Harrington
Alice A. Hicks, B. S., (Mrs. Geo. F. Black).....Portland
James D. Lazell, B. M. E., Draughtsman.....Philadelphia, Pa.
Charles A. Mason, B. C. E., Civil Engineer.....Fresco, Cal.
Henry A. McNally, B. C. E., U. S. Signal Service,
Milwaukee, Wis.
Fenton Merrill, B. C. E., Civil Engineer, N. M. R. R.....Orono
Addison R. Saunders, B. M. E., Draughtsman....Tacoma, Wash.
Cassius A. Sears, B. C. E.....Fort Kent
Charles H. Stevens, B. M. E., Manufacturer....Grand Falls, N. B.
Charles F. Sturtevant, B. C. E., Civil and Hyd. Engineer,
Minneapolis, Minn.
Frank E. Trask, B. C. E., Civil and Hyd. Engineer, Ontario, Cal.

Name and Occupation. *Residence.*

Charles T. Vose, B. C. E., Ass't Engineer,
W. & N. R. R., Wilmington, Del.
Howard S. Webb, B. M. E., Instructor in Shop Work,
Maine State College, Orono
John S. Williams, B. S., Principal High School.....Guilford

CLASS OF 1888.

Hiram B. Andrews, B. C. E., Civil Engineer.....Boston, Mass.
*George S. Batchelder, B. M. E., Draughtsman.....Bangor
Charles D. W. Blanchard, B. C. E., Civil Engineer.....Old Town
John R. Boardman, B. S., City Editor,
Kennebec Journal, Augusta
Francis S. Brick, B. S., Principal High School....Berlin Falls, N. H.
Harry Butler, B. S., Instructor Academy.....Hampden
Dudley E. Campbell, B. C. E., Civil Engineer.....Brunswick
Fred L. Eastman, B. M. E., Rapid Transit R. R.,
Topeka, Kan.
Edward H. Ellwell, Jr., B. S., with Transcript.....Portland
William J. Hancock, B. S., Post Graduate,
Cornell University, Ithica, N. Y.
John W. Hatch, B. S., Principal High School .....St. Albans
Claude L. Howes, B. M. E., with Thompson Houston
Electric Co., Lynn, Mass.
Harry F. Lincoln, B. S., with Thompson Houston Electric Co.,
Cardenas, Cuba
Thomas G. Lord, B. S., Farmer .....Skowhegan
Ralph H. Marsh, B. S., Principal High School.....Searsport
Seymore F. Miller, B. C. E., Draughtsman.....Chelsea, Mass.
William Philbrook, B. C. E., Washburn Shop,
Polytechnic Institute, Worcester, Mass.
Seymour E. Rogers, B. M. E., Draugtsman.....St. John, N. B.
George E. Seabury, B. M. E., Draughtsman,
M. C. R. R., Waterville
Frank L. Small, B. M. E., Draughtsman.....Freeport
Frank A. Smith, B. C. E., Civil Engineer.....St. Cloud, Minn.
Nathaniel E. Wilson, B. S., Post Graduate,
Cornell University, Ithica, N. Y.

*Deceased.

CLASS OF 1889.

Name and Occupation.	*Residence.*
Fred P. Briggs, B. S., Assistant in Natural History,	Maine State College, Orono
Charles G. Cushman, B. M. E., Draughtsman,	Trenton Iron Co. Trenton, N. J.
Joseph W. Edgerly, Jr., B. C. E.	Princeton
Jere S. Ferguson, B. S. Teacher	Searsport
George G. Freemen, B. S., Law Student	Cherryfield
George M. Gay, B. S., Clerk	Damariscotta
Eben R. Haggett, B. S.	Newcastle
Nellie L. Leavitt, B. S.	Norridgewock
John Reed, B. C. E., Civil Engineer	So. Gardiner
Nellie W. Reed, B. S.	Stillwater
*Fred Stevens, B. M. E.	Winter Harbor
Gilbert S. Vickery, B. C. E.	Bangor
Mark E. White, B. C. E., Surveyor and Overseer	Fort Kent
Mortimer F. Wilson, B. S., Clerk	Orono

*Deceased.

NON-GRADUATES.

Average period of attendance, one and a half years.

Present residence not being known, the former residence is given.

Special students are marked in the classes with which they principally recited.

[Corrections for a revised list are solicited.]

CLASS OF 1872.

Name and Occupation.	*Residence.*
John T. Bowler, Register of Deeds	Bangor
William H. Cary, Jr	St. Paul, Minn.
Edward F. Fisher	San Diego, Cal.
William H. George, Clergyman	Topeka, Kansas
William L. Harlow, Farmer	Buckfield
George L. Macomber	Durham
Charles C. Norton	Buffalo Meadows, Nevada
William B. Oleson, Clergyman	Honolulu, Sandwich Islands
Frank W. Rollins, Teacher	Stillwater, Minn.
Oren S. Sargent, M. D., Physician	Lawrence, Mass.
*Marcus P. Shorey	Oldtown
Benjamin F. Watson, Farmer	Levant

CLASS OF 1873.

William H. Claflin, Merchant	Boston
Joseph E. P. Clark, Book Business	Minneapolis, Minn.
*John Jackson	Alfred
Samuel Lane, Insurance Agent	Houlton
Wilbur F. Lovejoy, Book-Keeper	Winn

*Deceased.

Name and Occupation.	*Residence.*
Thomas P. Pease	Bridgton
Clarence Pullen, on Editorial Staff, Harper's Weekly,	New York City, N. Y.
Frederic A. Ransom	Augusta

CLASS OF 1874.

Frank P. Burleigh	Springfield
*Mark E. Burnham	Garland
Louville Curtis	Bowdoinham
Roland Curtis, M. D., Physician	Bowdoinham
*Samuel C. Moore	Cherryfield
Charles F. Osgood, Farmer	Garland
*William H. Reed	Springfield
George I. Trickey, Lawyer	Caribou
Manley H. Whitehouse	Orrington
Edward R. Wingate, Lumber Business	Cherryfield
William I. Wood, Lawyer	Corinna

CLASS OF 1875.

Gustavus Bellows, Farmer; Specialty, Fruit	Freedom
Leander H. Blossom, Farmer	Turner
John H. Carver, Clerk	Boston, Mass.
William B. Dole, Mechanic	Bangor
George N. Gage, Physician	E. Washington, N. H.
Benson H. Ham, Merchant	Charleston
Alton A. Jackson, M. D., Physician	E. Jefferson
Manley Jackson, Organ and Sewing Machine Business	Jefferson
Freeland Jones, Merchant and Surveyor	Caribou
Ora Oak	Caribou
Sidney S. Soule, Farmer	Freeport
Louis C. Southard, Lawyer, Boston	Residence, North Easton, Mass.
*George W. Spratt, Merchant	Bangor
Charles H. Spring, Wool Grower, Buenos Ayres, Arg. Rep., S. A.	

*Deceased

CLASS OF 1876.

Name and Occupation	*Residence.*
Francis H. Bacon, Architect	Boston, Mass.
Russell A. Carver	Dixfield
Frank P. Gurney, Farmer	Dover, Dakota
*Frank A. Hazeltine, Farmer	Dexter
Eugene L. Hopkins	Oldtown
James W. Linnell, Farmer	Exeter
George J. Moody, Lawyer	Montesano, Wash. Ter.
Webster Mudgett	Albion
Edward B. Pillsbury, Manager Postal Tel. Co.	Boston, Mass
Randall H. Rines, Merchant, (Rines Brothers)	Portland
Walter F. Robinson, Signal Service	Washington, D. C.
Edward C. Shaw, with American Watch Co.	Waltham, Mass.
Frank E. Southard, Lawyer	Augusta
Frank P. Whitaker, Physician	Hermon

CLASS OF 1887.

Charles F. Andrews	Biddeford
Fred S. Bunker, (A. B., Harvard)	City Hospital, Boston, Mass.
*Edson C. Chase	Stillwater
William W. Dow, Printer	Rehoboth, Mass.
James T. Emery	Stillwater
Charles M. Freeman	Portland
*Frank H. Goud, Clerk	Fort Fairfield
Austin I. Harvey, M. D., Physician	Carmel
Menzies F. Herring, Editor and Publisher	Dexter
Ardean Lovejoy	Orono
Fred B. Mallett, Lumbering Business	Minneapolis, Minn.
Fred L. Partridge	Stockton
Fred H. Pullen	Foxcroft
*Frank E. Reed	Springfield
Woodbury D. Roberts, Merchant	Cheney, Wyoming
Thomas B Seavy, Clerk	Chicago, Ill.
Henry C. Townsend, Farmer	Fort Fairfield
Clara E. Webb, Teacher	Unity
Fred S. Wiggin, Farmer	Presque Isle
William B. Whitney	Iowa

*Deceased.

CLASS of 1878.

Name and Occupation.	*Residence.*
Charles H. Benjamin, M. E., Professor Mech. Engineering, Case School of Applied Science,	Cleveland, Ohio
Eugene M. Berry	Sumner
*Nathaniel A. Crocker	W. Enfield
Charles C. Elwell, Ass't Engineer, W. & N. R. R.,	Wilmington, Del.
Howard H. Hartwell	Vinalhaven
John E. Haynes, Jeweller	Oldtown
Fred H. Hinckley, Clerk in U. S. Land Office	Eureka, Nev.
Richard S. Howe	Fryeburg
Samuel C. Jameson, Merchant	Providence, R. I.
William S. Jameson, Dealer in Sugar Machinery,	Guadalajara, Mex.
Edgar H. Lancaster, Mechanic in R. R. Shop	Oldtown
*Alvra W. Leathers	Dover
James Lunt	Bangor
Herbert A. Mallett, Lumberman	Stillwater, Minn.
Silas H. Miller, Prospecting for Gold and Silver,	Fairplay, Colorado
Frank J. Perkins, Merchant	Oldtown
Charles F. Plumbley, Merchant	Lincoln
John O. Richardson, Merchant	Oldtown
A. Judson Small	No. Lubec
Albert H. Stewart, Piano Regulator	Boston, Mass.
Edson Warriner, Watchmaker and Jeweller	Fryeburg
Erastus G. Weeks, Merchant	Jefferson

CLASS OF 1879.

Daniel Allison	Linneus
Arthur P. Brown, Principal High School	Bradley
Benjamin V. Carver, Machinist	Hartford, Conn.
Frank Clergue, Lawyer	Bangor
Byron H. Cochrane	Woonsocket, R. I.
Fred A. Colburn, Clerk and Scaler	Stillwater, Minn.
James W. Cousens, Merchant and Postmaster	Stillwater
John A. Curtis, Civil Engineer	Delta, Col.
George A. Dustin, Machinist and Trader	Dexter

*Deceased.

Name and Occupation. *Residence.*

Loomis F. Goodale, Civil Engineer St. J. & C. B. R. R., St. Joseph, Mo.
Edwin A. Hawes, Mechanic.....Ontario, Cal.
*Edwin C. Johnson.....Gorham
John N. Knapp.....Bradley
Oliver S. Jones, Farmer.....Corinna
Albert Y. Merrill, Lawyer, Judge of Probate.....Aitkin, Minn.
Asa C. Morton, Clerk.....Bangor
Harry W. Peakes, Merchant.....Charleston
David S. Plummer, Book-Keeper.....Boston, Mass.
*Eugene G. Smith.....Richmond
William N. Titus, Lawyer, Boston.....Residence, Woburn, Mass.
Howard E. Webster, Lumberman.....Orono
Arthur L. Wellington, Shipping Agent.....Detroit, Mich.
Charles M. Wilson.....San Francisco, Cal.

CLASS OF 1880.

Charles M. Allen, Teacher Pratt Institute.....Brooklyn, N. Y.
Edward N. Atwood.....Portland
Granville Austin, Salesman.....Boston, Mass.
Sylvester A Brown, Clerk.....Boston, Mass.
*Ada M. L. Buswell, Teacher.....Minneapolis, Minn.
Charles E. Cheney, Farmer.....W. Scarboro'
Woodbury F. Cleveland, M. D , Physician.....Eastport
Samuel H. Dyer.....Yarmouth
Osgood E. Fuller, Druggist.....Albany, N. Y.
Harry H. Goodwin, Editor.....Denison, Tex.
John B. Horton, Book-Keeper.....Sandusky, Ohio
Daniel S. Jones, Watchmaker and Jeweller.....Kansas
*Charles W. Nash.....Addison
Willis L. Oak, Clerk.....Presque Isle
Fred W. Powers, Farmer and Teacher.....Fryeburg
Emily I. Ramsdell, Teacher.....Atkinson
*Mortier C. Randall.....Stillwater
William J. Rich, Chemist, Cambria Iron Co.....Johnstown, Pa.
Charles S. Simpson, Civil Engineer and County Surveyor, Florence, Wis.

*Deceased.

Name and Occupation.	*Residence.*
Frank A. Spratt, A. B., Principal Academy	Hampden
Daniel Webster, Express Agent	Augusta
Arthur Wentworth	Orrington

CLASS OF 1881.

Henry W. Adams, Lumberman	Wisconsin
*Lorin T. Boynton	Ashland
Charles P. Chandler, Machinist	New Gloucester
Elmer C. Chaplin, Salesman	Bangor
*Frank P. Fessenden	South Bridgton
Archy S. Gee, Clerk	Minneapolis, Minn.
George W. Holmes, Merchant	Norway
John F. Horne, Shoe Manufacturer	Auburn
Benjamin L. Johnson	Portland
Edward C. Luques, Broker	Biddeford
Charles S. Macomber, Lawyer	Carrollton, Iowa
Charles S. D. Nichols, Farmer	Hollis
James M. Nowland, Farmer	Ashland
Charles C. Ross, Commercial Salesman	St. Stephen, N. B.
Clara Southard, (Mrs. Hammond)	Lincoln Center
*Charles P. Tidd, Tel. Operator	Forest Green, Missouri
Harry P. Tidd, Teacher	Higginsville, Missouri
William R. Tilden, Workman in Shoe Factory	Campello, Mass.
William A. Vinal, Scaler	Orono
William G. Wales	Monticello, Iowa
Frank B. Weeks, Government Quartermaster's Office,	San Francisco, Cal.
Flora Welch, Nurse	Boston, Mass.
George H. Wilson, Clerk, Gov. Storehouse	Maricopa, Arizona

CLASS OF 1882.

Joseph B. Bartlett, Farmer	Ashland
Charles E. Chapin, Salesman	Boston, Mass.
Charles C. Dunn, Farmer	Ashland
Charles W. Fenlason	Bridgewater
*John J. Greenlaw, Merchant	No. Fryeburg
William H. Hatch, Grocer	Lisbon
Wesley J. Jameson, Clerk	St. Paul, Minn.

*Deceased.

Name and Occupation.	*Residence.*
Frederick A. Kenniston, Salesman	Brockton, Mass.
Frederick O. Kent	Bremen
Walter H. Nason, M. D., Physician	Hampden
Atta L. Nutter, Teacher	Wilmington, N. C.
Parker J. Page	Orono
Harry K. Poole	Bremen
Louis K. Tilley, Farmer	Castle Hill

CLASS OF 1883.

George R. Currier, Teacher	E. Wilton
Arthur T. Drummond, Farmer	Sidney
William E Emery, M. D., Physician	Surry
Norman F. Kelsea, Clerk	Brockton, Mass.
Edwin P. Kendall, Farmer and Miller	Bowdoinham
*Henry W. Longfellow, Clerk	Machias
Charles S. Murray	Stillwater
George A. Rich, A. B., On Editorial Staff Journal	Boston, Mass.
Everett F. Rich, Clerk, Bangor Savings Bank	Bangor
Ralph Starbird, Lumber Dealer	San Francisco, Cal.
Ralph R. Ulmer, Lawyer and Clerk of Court	Rockland
Frank C. Webster, Clerk, American Express Co	Bangor
Frank G. Webster, Clerk	Orono
Lewis H. White, M. D., Physician	Lincoln Center

CLASS OF 1884.

Edward S. Abbott, M. D., Physician	Bridgton
Edward M. Bailey, Merchant	Bangor
Joseph B. Bartlett	Nottingham, N. H.
William A. Berry	Hampden
James A. Dunning	Virginia City, Nev.
Freeland Ellis, Clerk	Guilford
Eugene L. Folsom, Machinist	Stillwater
Evie M. Hamblen	Stillwater
Robert S. Leighton	Steuben
*Gilbert Longfellow, Jr	Machias
Cephas R. Moore, Merchant and Postmaster	Anson

*Deceased.

Name and Occupation.	*Residence.*
William R. Pattangall	Petersboro, N. H.
Robert C. Patterson, Stenographer	St. Paul, Minn.
Charles S. Pendleton, Farmer	Philbrook, Montana
Herbert L. Rich, Ins. Nat. Sci. Laselle Acad'y,	Auburndale, Mass.
Flora M. Ricker (Mrs. P. J. Page)	Orono
Warren J. Ridley, Conductor, Street R. R.	South Boston, Mass.
Elmer A. Savage	Minneapolis, Minn.
Mertie Sawyer	Hampden
Charles F. Smith, Prin. High School	Lenox, Mass.
*Horace G. Trueworthy	Orono
Jotham Whipple, Jr.	Solon

CLASS OF 1885.

James W. Bishop, Farmer	Milo
Frederick H. Butler, Division Engineer, T. St. L. & K. C. R. R.,	Charleston, Ill.
Harry W. Davis, Banker	Church's Ferry, No. Dakota
Fred W. Dickerson	Belfast
Samuel W. Hill	Machias
Willard A. Libby	Denver, Col.
Charles L. Libby, Supt. Tool Works	Bridgeport, Conn.
*Frank E. Manter	Milo
Dennis D. Merrill, Steam Laundry	Auburn
Dudley W. Moor, Jr., Real Estate	Toledo, Ohio
Carl H. Prince, Farmer	Turner
Elisha C. Vose, U. S. Signal Service and Journalist	Chicago, Ill.

CLASS OF 1886.

Eugene C. Bartlett, Medical Student	Orono
John I. Chase, Clerk	Los Angeles, Cal.
Charles H. Merriam	Fort Laramie, Wyoming Ter.
Harry E. Powers, Mechanic, Iron Works	Bath
Harold E. Trueworthy, Farmer	Houlton

*Deceased.

CLASS OF 1887.

Name and Occupation.	*Residence.*
Alton D. Adams, with Mather Electric Co	St. Paul, Minn.
John W. Allen	Presque Isle
Alice Benjamin	Oakland
Irving M. Clark, Civil Engineer	Seattle, Wash.
Jennie L. Dority	Wells
Wm. J. Harris	Groton, Mass.
Austin D. Houghton, Instructor Clark Institute	Atlanta, Ga.
James S. Kennedy	Ludlow
William L. Perham	Paris
Wm. P. Sherburn	Dover
Frank L. Tucker	Norway
Charles W. Wentworth, Lawyer	No. Windham
Rodney A. B. Young, Medical Student	Baltimore, Md.
Alfred S. Ruth, Resident Engineer, P. S. & G. H. R. R.,	Summit, Wash.

CLASS OF 1888.

Charles W. Breed, Clerk	Philadelphia, Pa.
Albion H. Buker	Boston, Mass.
James K. Chamberlain, Plumber and Sanitary Engineer	Bangor
*Frank P. Collins	Ft. Fairfield
Fred T. Drew	Orono
George K. Hagerthy	So. Hancock
Fred H. Kirkpatrick, Engineer Md. Cen. R. R.	Baltimore, Md.
Hannah E. Leavitt (Mrs. Walter Flint)	Orono
Edwin B. Lord	Stillwater
Alphonso F. Marsh, Clerk	Oldtown
Frank J. Page	Orono
Henry F. Perkins, Mechanic	Oakland
Nathan A. Ring	Orono
Charles C. Rolfe, Teacher	Presque Isle
Abram W. Sargent	Seattle, Wash.
Joseph S. True, Farmer	New Gloucester
Ernest H. Turnbull	St. John, N. B.

*Deceased.

CLASS OF 1889.

Name and Occupation.	*Residence.*
Benjamin R. Clark	No. Lubec
George G. Fernald	Wilton
Arthur M. Folsom	Oldtown
Charles B. Gould	Orono
Elmer E. Greenwood, M. C. R. R.	Twin Mountain, N. H.
Temple Grosvenor	Canterbury, N. B.
Lewis F. Johnson	LaGrange
Cora A. Leavitt (Mrs. Frank L. Parker)	Norridgewock
John E. Littlefield	Brewer
Albert L. Lyford, Prin. Com. Dept., Maine Wesleyan Seminary,	Kent's Hill
*Maude A. Matthews	Stillwater, Me.
Clara Rogers	Hampden
William H. Sargent	Brewer Village
Frederick L. Thompson, Medical Student	Augusta
Norman Tripp	Unity
Fred H. Webb, Mechanical Engineer	Skowhegan
Ambrose H. White, Trenton Iron Company	Trenton, N. J.

CLASS OF 1890.

Charles A. Dillingham	Oldtown
George W. Hodgdon	Rumford
John W. Lewis	Milton Mills, N. H.
Herbert B. Rowell	Solon

CLASS OF 1891.

Arthur W. Andrews	Biddeford
Leslie A. Boadway	Orono
Robert W. Fuller	Newtonville, Mass.
William A. Harlow	Milford
Edwin W. Hodgdon	Brewer
Byron C. Hodgkins	Stillwater
Joseph M. Jackson	Boothbay
Charles H. Maling	Brewer
Jay P. Norton	York Corner
Arthur M. Otis	Grafton
Robert M. Packard	Rockland
Clifford I. Pillsbury	Rockland

CLASS OF 1892.

Name and Occupation.	*Residence.*
George A. Bailey	Dexter
Edwin T. Clifford	Leeds
George C. Hamilton	Dexter
Harry S. Thompson	Dexter

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CALENDAR.

1889—Feb. 4,	Tuesday, Second Term commences.
June 19, 20,	Thursday and Friday, Examinations.
" 21,	Saturday, Prize Declamations by Sophomores.
" 22,	Sunday, Baccalaureate Address.
" 23,	Monday, Prize Essays by Juniors.
" 25,	Wednesday, Commencment.
" 27,	Friday, Examination of Canditates for Admission.
	Vacation of five weeks.
Aug. 5,	Tuesday, Examination of Candidates for Admission.
	First Term commences.
Nov. 24, 25,	Monday and Tuesday, Examinations.
	Vacation of eleven weeks.
1890—Feb. 3,	Tuesday, Second term commences.

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